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SUSAN B. WILLIS
Susan B. Willis
(signature)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
Craig E. Sherrett, et al.)	Group Art Unit: 3637
)	
Serial No. 10/734,836)	Examiner: Phi Dieu Tran A
)	
Filed: December 12, 2003)	Appeal No.
)	
For: IMPACT RESISTANT GLASS UNIT)	Attorney Docket: 1-36953
)	

August 23, 2006

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

BRIEF ON APPEAL

Honorable Sir:

This is an Appeal from the action of the Examiner dated April 19, 2006 and an Advisory Action dated July 31, 2006, finally rejecting Claims 1-20 in the above-identified patent application. Appellant filed a Notice of Appeal, which has an effective date of July 18, 2006. This Brief on Appeal is being filed under the provisions of 37 CFR §41.37.

The Commissioner is hereby authorized to charge \$250.00 for a small entity Brief on Appeal and any other necessary charges to Deposit Account No. 50-3156. A decision on whether to request an oral hearing will be delayed until after the Examiner's Answer has been received.

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I. REAL PARTY IN INTEREST

The inventors, Craig E. Sherrett, Charles M. Wetmore, and James L. Coasharek, have assigned all rights in the invention and instant application to Kensington Windows, Inc., the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences which will directly affect, or be directly affected by, or have a bearing on, the Board's decision in this pending appeal.

III. STATUS OF CLAIMS

Claims 1-20, inclusive, are pending in the application and are being appealed herein.

IV. STATUS OF AMENDMENTS

There are no amendments pending in the application.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Appellant's invention, as set forth in Claim 1, is directed to an impact resistant glass unit. The inventive glass unit comprises the following:

- A) a generally planar glass first layer having an outer edge, wherein the outer edge is adapted to be disposed in a window casing, (page 3, line 26 through page 4, line 8; Fig. 1)
- B) a generally planar impact resistant plastic second layer spaced from and substantially

parallel with the first layer, the second layer having an outer edge, wherein the outer edge is adapted to be disposed in a window casing, (page 3, line 26 through page 4, line 25; Fig. 1)

- C) a generally planar glass third layer with a laminate film disposed on a surface thereof spaced from and substantially parallel with the first layer and the second layer, the third layer having an outer edge, wherein the outer edge is adapted to be disposed in a window casing, (page 3, line 26 through page 5, line 15; Fig. 1)
- D) a first spacer disposed between the first layer and the second layer adjacent the respective outer edges thereof, (page 5, lines 16-18; Fig. 1)
- E) a second spacer disposed between the second layer and the third layer adjacent the respective outer edges thereof. (page 5, lines 18-20; Fig. 1)

Claims 2-17 depend from and contain at least the same limitations as Claim 1.

Independent Claim 18 contains at least the same limitations as Claim 1.

Independent Claim 19 contains at least the same limitations as Claim 1.

Claim 20 depends from and contains at least the same limitations as Claim 19.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Issue 1:

Whether Claims 1-2, 4-5, 10, 13, 15-16, and 18-20 are unpatentable under 35 U.S.C. §102(b) as being anticipated by U.S. Pat. No. 4,368,226.

Issue 2:

Whether Claim 3 is unpatentable under 35 U.S.C. §103(a) as being obvious over U.S. Pat. No. 4,368,226 in view of U.S. Pat. No. 6,286,288.

Issue 3:

Whether Claim 6 is unpatentable under 35 U.S.C. §103(a) as being obvious over U.S. Pat. No. 4,368,226 in view of U.S. Pat. No. 6,286,288 as applied to Claim 4, and further in view of U.S. Patent No. 5,784,853.

Issue 4:

Whether Claims 7-9, 12, and 14 are unpatentable under 35 U.S.C. §103(a) as being obvious over U.S. Pat. No. 4,368,226 in view of U.S. Pat. No. 5,784,853.

Issue 5:

Whether Claim 11 is unpatentable under 35 U.S.C. §103(a) as being obvious over U.S. Pat. No. 4,368,226 in view of U.S. Pat. No. 6,108,999.

Issue 6:

Whether Claim 17 is unpatentable under 35 U.S.C. §103(a) as being obvious over U.S. Pat. No. 4,368,226 in view of U.S. Pat. No. 4,459,789.

VII. ARGUMENT

Issue 1:

The Examiner rejected Claims 1-2, 4-5, 10, 13, 15-16, and 18-20 under 35 U.S.C. §102(b) as being anticipated by Mucaria (U.S. Pat. No. 4,368,226) in an Office Action dated April 19, 2006. The Examiner added:

“Mucaria shows an impact resistant glass structure comprising a generally planar glass first layer (3,5,4) having an outer edge, a generally planar impact resistant plastic second layer (9) spaced from and substantially parallel with the first layer, the second layer having an outer edge, a generally planar glass third layer (6,8,7) with a laminate film (8) disposed on a surface thereof spaced from and substantially parallel with the first (sic) and second layer, the third layer having an outer edge,...”

Mucaria is directed to an impact resistant glass structure having three layers, at least two of the layers being laminated glass. The first layer (1) and the second layer (2) are each constructed of a first (3,6) and second glass layer (4,7) bonded by polyvinyl butyral (5,8) (see Col. 1, lines 66-68 and Col. 2, lines 1-3). The third layer is a polycarbonate sheet (9) positioned between, and parallel to, the first layer (1) and the second layer (2) (see Col. 2, lines 8-12).

Although both the Mucaria reference and Appellants’ invention as claimed both include an impact resistant glass structure having a plurality of layers, the layers are quite distinct from one another. Claim 1 of the instant application recites, in part, “a generally planar glass first layer...; a generally planar impact resistant plastic second layer...; a generally planar glass third layer with a laminate film disposed on a surface thereof...”. The first layer is a planar glass, the second layer is a planar plastic, and the third layer is a planar glass layer having a laminate film a one surface thereof. Neither the first layer, the second layer, nor the third layer include two glass layers bonded by a polymer or other material.

The glass structure recited in Claim 1 of the instant application improves on impact resistant glass structures known in the art. Although the Examiner has taken the position that the layers of the glass structure of Mucaria include a glass layer with a laminate film (see paragraph 2 in the 4/19/06 Office Action), the analysis above proves quite the contrary. Mucaria shows a glass structure having multiple laminated glass layers, and not a glass structure having a glass layer with a laminate film.

As previously presented in an Office Action Response and Amendment dated January 30, 2006 and an Office Action Response and Amendment dated July 5, 2006, the Merriam-Webster Dictionary defines a “laminated glass” as “glass made with plates of plastic or resin or other material **between** two sheets of glass to prevent shattering” (emphasis added). The above definition is consistent with the structure disclosed in Mucaria. Thus, the first layer (1) and the second layer (2) of the glass structure disclosed in Mucaria are laminated glass layers. Merriam-Webster Dictionary defines a “film” as “a thin covering or coating”. A “coating” is defined as “a layer of a substance spread over a surface for protection or decoration”. The adjective “lamine” is defined as “consisting of, arranged in, or covered with laminae”. “Laminae” is defined as “a thin plate, sheet, or layer”. Thus, a laminate film is a thin layer of a substance spread over a single surface. The above definitions are consistent with the structure disclosed in the present application, and accordingly the structure disclosed by Appellants is entirely distinct from that disclosed by Mucaria.

The terms “laminated glass” and glass having a “lamine film” are clearly not interchangeable in meaning as suggested by the Examiner, and are quite distinct. The interpretation of the Examiner is inconsistent with the definition of “laminated glass” and “film” from the Merriam-Webster Dictionary, and as respectively defined by Mucaria and the present application.

Mucaria simply does not disclose the structure recited in Claim 1. The structures are entirely different and distinct from one another. Mucaria does not disclose, or remotely suggest, a glass layer having a lamine film on a surface thereof.

Due to the unmistakable differences between the structure recited in Claim 1 and the structure disclosed by Mucaria, it is submitted that Claim 1 is not anticipated under 35 U.S.C. §102(b) by Mucaria and is patentable. Since Claim 1 is patentable, Claims 2, 4-5, 10, 13, and 15-16 which contain at least the same limitations as Claim 1 are also patentable.

The Examiner also rejected Independent Claims 18 and 19 under 35 U.S.C. §102(b) as being anticipated by Mucaria. Claims 18 and 19 contain at least the same limitations as Claim 1, namely a glass layer having a lamine film on a surface thereof. For the same reasons listed

above, Mucaria does not anticipate Claims 18 and 19. Accordingly, Claims 18 and 19 are deemed patentable. Since Claim 19 is patentable, Claim 20 which depend therefrom and contains at least the same limitations as Claim 19 is also patentable.

Issue 2:

The Examiner rejected Claim 3 under 35 U.S.C. § 103(a) as being obvious over Mucaria in view of France (U.S. Patent No. 6,286,288).

As discussed above, Claim 1 is patentable over Mucaria. Therefore, Claim 3 which depends therefrom is patentable.

Issue 3:

The Examiner rejected Claim 6 under 35 U.S.C. § 103(a) as being obvious over Mucaria in view of France as applied to Claim 4, and further in view of Hood et al. (U.S. Patent No. 5,784,853).

As discussed above, Claim 1 is patentable over Mucaria. Therefore, Claim 6, which depends therefrom is patentable.

Issue 4:

The Examiner rejected Claims 7-9, 12, and 14 under 35 U.S.C. § 103(a) as being obvious over Mucaria in view of Hood et al.

As discussed above, Claim 1 is patentable over Mucaria. Therefore, Claims 7-9, 12, and 14, which depends therefrom is patentable.

Issue 5:

The Examiner rejected Claim 11 under 35 U.S.C. § 103(a) over Mucaria in view of Smith et al. (U.S. Patent No. 6,108,999).

As discussed above, Claim 1 is patentable over Mucaria. Therefore, Claim 11, which depends therefrom is patentable.

Issue 6:

The Examiner rejected Claim 17 under 35 U.S.C. § 103(a) over Mucaria in view of Ford (U.S. Patent No. 4,459,789).

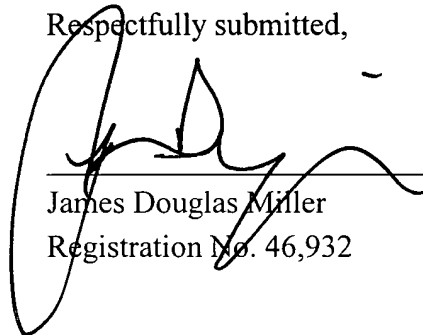
As discussed above, Claim 1 is patentable over Mucaria. Therefore, Claim 11, which depends therefrom is patentable.

Conclusion:

Claims 1-2, 4-5, 10, 13, 15-16, and 18-20 are not anticipated by U.S. Pat. No. 4,368,226 to Mucaria. Claim 3 is not obvious over Mucaria in view of U.S. Patent No. 6,286,288 to France. Claim 6 is not obvious over Mucaria in view of France as applied to Claim 4, and further in view of Patent No. 5,784,853 to Hood et al. Claims 7-9, 12, and 14 in view of Hood et al. Claim 11 is not obvious over Mucaria in view of U.S. Patent No. 6,108,999 to Smith et al.. Claim 17 is not obvious over Mucaria in view of U.S. Patent No. 4,459,789 to Ford. Therefore, the Examiner's outstanding final rejection of Claims 1-20 should be reversed by the Board.

Accordingly, Appellants respectfully submit that Claims 1-20 should be allowed.

Respectfully submitted,



James Douglas Miller
Registration No. 46,932

Fraser Martin & Miller LLC
28366 Kensington Lane
Perrysburg, Ohio 43551
(419) 874-1100

VIII. CLAIMS APPENDIX

1. An impact resistant glass structure comprising:

a generally planar glass first layer having an outer edge;

a generally planar impact resistant plastic second layer spaced from and substantially parallel with said first layer, said second layer having an outer edge;

a generally planar glass third layer with a laminate film disposed on a surface thereof spaced from and substantially parallel with said first layer and said second layer, said third layer having an outer edge;

a first spacer disposed between said first layer and said second layer adjacent the respective outer edges thereof; and

a second spacer disposed between said second layer and said third layer adjacent the respective outer edges thereof, wherein the outer edge of said first layer, the outer edge of said second layer, and the outer edge of said third layer are adapted to be disposed in a window casing.

2. The structure according to Claim 1, including a first sealant disposed between said first layer and said second layer, and between said second layer and said third layer adjacent the respective outer edges thereof.

3. The structure according to Claim 2, wherein the first sealant is a polyisobutylene sealant.
4. The structure according to Claim 2, including a second sealant disposed between at least said first layer and said third layer adjacent the respective outer edges thereof.
5. The structure according to Claim 4 wherein at least one of the first sealant and the second sealant at least partially surround said first spacer and said second spacer.
6. The structure according to Claim 4, wherein the second sealant is a polyurethane sealant.
7. The structure according to Claim 1, wherein a gas filled air space is formed between at least one of said first layer and said second layer, and said second layer and said third layer.
8. The structure according to Claim 1, wherein said first layer is an annealed glass.

9. The structure according to Claim 1, wherein said first layer has a low-E material deposited thereon.
10. The structure according to Claim 1, wherein said second layer is a polycarbonate.
11. The structure according to Claim 1, wherein said second layer is a polymethyl methacrylate.
12. The structure according to Claim 1, wherein said second layer is a polyethylene terephthalate.
13. The structure according to Claim 1, wherein the outer edge of said second layer is spaced inwardly from respective outer edges of said first layer and said third layer.
14. The structure according to Claim 1, wherein said third layer is an annealed glass.

15. The structure according to Claim 2, wherein the first sealant and the second sealant hold said first spacer and said second spacer in place and militate against the separation of said first layer, said second layer, and said third layer.

16. The structure according to Claim 1, wherein the film is disposed on one of an inner surface or an outer surface of said third layer.

17. The structure according to Claim 1, wherein the film is a polyester.

18. An impact resistant glass structure comprising:

- a generally planar glass first layer having an outer edge;
- a generally planar impact resistant plastic second layer spaced from and substantially parallel with said first layer, said second layer having an outer edge;
- a generally planar third layer with a laminate film disposed on a surface thereof spaced from and substantially parallel with said first layer and said second layer, said third layer having an outer edge;
- a first spacer disposed between said first layer and said second layer adjacent the respective outer edges thereof;
- a second spacer disposed between said second layer and said third layer adjacent the respective outer edges thereof, wherein the outer edge of said first layer, the outer edge of said second layer, and the outer edge of said third layer are adapted to be disposed in a window casing;
- a first sealant disposed between said first layer and said second layer, and between said second layer and said third layer adjacent the respective outer edges thereof; and
- a second sealant disposed between at least said first layer and said third layer adjacent the respective outer edges thereof, wherein said first sealant and said second sealant form a vapor barrier between at least one of a space formed between said first layer and said second layer and the atmosphere and a space formed between said second layer and said third layer and the atmosphere.

19. An impact resistant glass structure comprising:

- a generally planar glass first layer having an outer edge;
- a generally planar impact resistant plastic second layer spaced from and substantially parallel with said first layer, said second layer having an outer edge;
- a generally planar glass third layer with a laminate film disposed on a surface thereof spaced from and substantially parallel with said first layer and said second layer, said third layer having an outer edge;
- a first spacer disposed between said first layer and said second layer adjacent the respective outer edges thereof; and
- a second spacer disposed between said second layer and said third layer adjacent the respective outer edges thereof, wherein the outer edge of said first layer, the outer edge of said second layer, and the outer edge of said third layer are adapted to be disposed in a window casing, wherein a first space is formed between said first layer and said second layer and a second space is formed between said second layer and said third layer, and communication between the first space and the second space is militated against.

20. The structure according to Claim 19, including a first sealant disposed between said first layer and said second layer and between said second layer and said third layer adjacent the respective outer edges thereof, and including a second sealant disposed between at least said first layer and said third layer adjacent the respective outer edges thereof.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.